

## **REMARKS**

Applicants respectfully request reconsideration of the present Application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1, 6, and 17 are currently being amended. Claims 21-24 are being added. No new matter was added. No claims are being cancelled. Claims 1-6 and 17-24 are now pending in this Application.

A detailed listing of all claims that are, or were, in the Application, irrespective of whether the claim(s) remain under examination in the Application, is presented, with an appropriate defined status identifier.

For simplicity and clarity purposes in responding to the Office Action, Applicants' remarks are primarily focused on the rejections of the independent claims (i.e. 1, 17, and 21) outlined in the Office Action with the understanding that the dependent claims that depend from the independent claims are patentable for at least the same reasons (and other reasons) that the independent claims are patentable. Applicants expressly reserve the right to argue the patentability of the dependent claims separately in any future proceedings.

## **35 U.S.C. § 103**

On pages 2-6 of the Office Action, Claims 1-4, 17, 18, and 20 were rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,944,475 (“Campbell”) in view of U.S. Patent No. 6,041,035 (“Thedens”). Claim 5 was rejected under 35 U.S.C. §103 as being unpatentable over Campbell, Thedens, and in view of U.S. SIR Reg. No. H1,836 (“Fletcher”). Claims 6 and 19 were rejected under 35 U.S.C. §103 as being unpatentable over Campbell, Thedens, and in view of U.S. Patent No. 5,960,344 (“Mahany”). Applicants respectfully submit that these references, alone or in combination, do not render obvious that which is recited in Claims 1-6 and 17-20.

**Legal Standard – 35 U.S.C. § 103**

On pages 2-6 of the Office Action, Claims 1-6 and 17-20 were rejected under 35 U.S.C. § 103(a). 35 U.S.C. § 103(a) states:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Obviousness under 35 U.S.C. § 103(a) is a legal conclusion involving four factual inquiries:

- (1) the scope and content of the prior art;
- (2) the differences between the claims and the prior art;
- (3) the level of ordinary skill in the pertinent art; and
- (4) secondary considerations, if any, of nonobviousness.

See Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966). See also KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007) (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A *prima facie* case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ

560, 562 (CCPA 1972). Further, the Examiner must provide references that comply with the all claim limitations standard. A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not “evidence.” Thus, when an Examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002). See also In re Dembicza, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Recently, in KSR Int'l v. Teleflex, the Supreme Court rejected a rigid approach to the question of obviousness. 550 U.S. \_\_, 127 S.Ct. 1727, 1738 (2007). At the same time, however, the Supreme Court recognized that, “inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” Id. at 1741. Thus, a patent composed of several elements “is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” Id. Therefore, there must be an articulated reasoning with a rational underpinning to support a legal conclusion of obviousness. Id. (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”) (quoting In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

**Independent Claim 1**

As stated in the 35 U.S.C. § 103 legal standard section, the Examiner must comply with the all claim limitations standard to establish a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103.

Campbell relates to a “transceiver-processor building block (700) for implementation of radio systems” (Campbell, Abstract). Thedens relates to a “open system module electronics architecture” (Thedens, Title).

Campbell in combination with Thedens would not have resulted in the subject matter recited in independent Claim 1 because the proposed modification of Campbell in combination with Thedens does not disclose, teach, or suggest a “multi-channel radio . . . the encoded information being configured to be able to be decoded by devices corresponding to the security level of the one of the processors of the first set of more than one processors [and] wherein the first common bus is configured to direct the encoded information to an intended processor of the second set of more than one processors, the intended processor corresponding to the security level [and] the encoded information is not decodable by another processor of the second set of more than one processors corresponding to a different security level.”

The Examiner previously stated “the Campbell combination does not teach explicitly wherein the second common bus directs the encoded information so that it is received by the intended processor of the second set of processors and not received or understood by other of the processors of the second set of processors” (Office Action dated 06/04/2007, pages 7-8).

Therefore, the Examiner relies on Thedens (col. 5, line 60 to col. 6, line 14) for the claim limitation of “wherein the first common bus is configured to direct the encoded information to an intended processor of the second set of more than one processors, the intended processor corresponding to the security level [and] the encoded information is not decodable by another

processor of the second set of more than one processors corresponding to a different security level.” This section of Thedens states:

FIG. 2 is a diagrammatic illustration of CNI avionics system 100 illustrated in FIG. 1, which further illustrates communication threads or pathways between black data processing modules and red data processing modules. Using the data base stored in the associated memory of resource management processor 360, a communication path is defined from each black data module (i.e., integrated sensor subsystems 120, 140 and 160) to the corresponding red data modules or subsystems (i.e., platform interface 220 and human machine interface 240) with which the black data module is to communicate. For example, as illustrated in FIG. 2, communication path 400 is initially defined between integrated sensor subsystem 120 and platform interface 220. As initially defined, communication path 400 includes connection 128, first interconnect 180, connection 262, first cryptographic processor 260, connection 264, second interconnect 200 and connection 222. Data transferred in either direction between subsystem 120 and platform interface 220 will follow communication path 400. (Thedens, col. 5, line 60 to col. 6, line 14).

The Applicants respectfully submit that this section of Thedens (and Thedens in general) does not disclose, teach, or suggest “the first common bus is configured to direct the encoded information … to an intended processor [which is] **not decodable** by another processor … corresponding to a different security level.” (*Emphasis added*).

Since the combination of Campbell and Thedens fails the all claim limitations standard of 35 U.S.C. § 103 with respect to Claim 1, Claim 1 is patentable over the combination of Campbell and Thedens.

Fletcher and/or Mahany do not cure the deficiencies of the combination of Campbell and Thedens noted above with reference to Claim 1.

If the Examiner maintains the rejections of the claims under 35 U.S.C. § 103, the Applicants respectfully request clarification on how the cited sections of the references disclose, teach, or suggest the above-mentioned claim limitations and that the Examiner provide a more

detailed reasoning to support the legal conclusion of obviousness. *See KSR Int'l v. Teleflex*, 550 U.S. \_\_\_, 127 S.Ct. 1727, 1738 (2007) (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)(citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Accordingly, the Applicants request withdrawal of the rejections of Claims 1-6 under 35 U.S.C. § 103(a). See 35 U.S.C. § 112 ¶ 4.

### **Independent Claim 17**

As stated in the 35 U.S.C. § 103 legal standard section, the Examiner must comply with the all claim limitations standard to establish a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103.

Campbell relates to a “transceiver-processor building block (700) for implementation of radio systems” (Campbell, Abstract). Thedens relates to a “open system module electronics architecture” (Thedens, Title).

Campbell in combination with Thedens would not have resulted in the subject matter recited in independent Claim 17 because the proposed modification of Campbell in combination with Thedens does not disclose, teach, or suggest a “multi-channel radio … the transform circuit being configured to provide encoded data from a first channel, the encoded data being able to be decoded by processors assigned to the first channel, the encoded data is further not able to be decoded by processors assigned to a second channel, the first channel is configured to have a first information security level and the second channel is configured to have a second information security level [and] a common bus interface coupled between the first set of processors and the second set of processors, the common bus interface configured to isolate processors of the second set of processors based on the first information security level and the second information security level.”

Campbell and/or Thedens do not disclose, teach, or suggest a transform circuit being configured to provide encoded data from a first channel, the encoded data being able to be decoded by processors assigned to the first channel, the encoded data is further not able to be decoded by processors assigned to a second channel, the first channel is configured to have a first information security level and the second channel is configured to have a second information security level.

Further, the Examiner relies on Thedens (col. 5, line 60 to col. 6, line 14) for the claim limitation of “a common bus interface coupled between the first set of processors and the second set of processors, the common bus interface configured to isolate processors of the second set of processors based on the first information security level and the second information security.” This section of Thedens states:

FIG. 2 is a diagrammatic illustration of CNI avionics system 100 illustrated in FIG. 1, which further illustrates communication threads or pathways between black data processing modules and red data processing modules. Using the data base stored in the associated memory of resource management processor 360, a communication path is defined from each black data module (i.e., integrated sensor subsystems 120, 140 and 160) to the corresponding red data modules or subsystems (i.e., platform interface 220 and human machine interface 240) with which the black data module is to communicate. For example, as illustrated in FIG. 2, communication path 400 is initially defined between integrated sensor subsystem 120 and platform interface 220. As initially defined, communication path 400 includes connection 128, first interconnect 180, connection 262, first cryptographic processor 260, connection 264, second interconnect 200 and connection 222. Data transferred in either direction between subsystem 120 and platform interface 220 will follow communication path 400. (Thedens, col. 5, line 60 to col. 6, line 14).

The Applicants respectfully submit that this section of Thedens (and Thedens in general) does not disclose, teach, or suggest “a common bus interface coupled between the first set of processors and the second set of processors, the common bus interface configured to isolate

processors of the second set of processors based on the first information security level and the second information security.” (Emphasis added).

Since the combination of Campbell and Thedens fails the all claim limitations standard of 35 U.S.C. § 103 with respect to Claim 17, Claim 17 is patentable over the combination of Campbell and Thedens.

Fletcher and/or Mahany do not cure the deficiencies of the combination of Campbell and Thedens noted above with reference to Claim 17.

If the Examiner maintains the rejections of the claims under 35 U.S.C. § 103, the Applicants respectfully request clarification on how the cited sections of the references disclose, teach, or suggest the above-mentioned claim limitations and that the Examiner provide a more detailed reasoning to support the legal conclusion of obviousness. *See KSR Int'l v. Teleflex*, 550 U.S. \_\_\_, 127 S.Ct. 1727, 1738 (2007) (“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)(citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Accordingly, the Applicants request withdrawal of the rejections of Claims 17-20 under 35 U.S.C. § 103(a). See 35 U.S.C. § 112 ¶ 4.

### **Independent Claim 21**

Applicants have added new independent Claim 21. Campbell in combination with Thedens would not have resulted in the subject matter recited in independent Claim 21 because the proposed modification of Campbell in combination with Thedens does not disclose, teach, or suggest a “multi-channel radio … wherein a reincapsulated encrypted outbound packet is configured to be able to be decoded by processors assigned to the first security level, the reincapsulated encrypted outbound packet is further configured to not be able to be decoded by processors assigned to a second security level [and] wherein the first common bus directs the reincapsulated encrypted outbound packet to processors assigned to the first security level.”

Since the combination of Campbell and Thedens fails the all claim limitations standard of either 35 U.S.C. § 102 and/or 35 U.S.C. § 103 with respect to Claim 21, Claim 21 is patentable over Campbell, Thedens and/or a combination thereof.

Fletcher and/or Mahany do not cure the deficiencies of the combination of Campbell and Thedens noted above with reference to Claim 21.

Accordingly, the Applicants respectfully submit that Claims 21-24 are patentable. See 35 U.S.C. § 112 ¶ 4.

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Applicants believe that the present Application is now in condition for allowance. Favorable reconsideration of the Application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

Further, Applicants respectfully put the Patent Office and all others on notice that all arguments, representations, and/or amendments contained herein are only applicable to the present Application and should not be considered when evaluating any other patent or patent application including any patents or patent applications which claim priority to this patent Application and/or any patents or patent applications to which priority is claimed by this patent Application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this Application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to

Deposit Account No. 18-1722. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 18-1722.

Respectfully submitted,

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By Joseph N. Ziebert

**Customer Number: 26383**

Telephone: (319) 295-8280

Facsimile: (319) 295-8777

Joseph N. Ziebert  
FOLEY & LARDNER LLP  
Attorney for Applicants  
Registration No. 35,421